Sept. 11, 1956 N. E. TINGLEY 2,762,070

WRINGER MOP

Filed June 16, 1954

Fig. 1

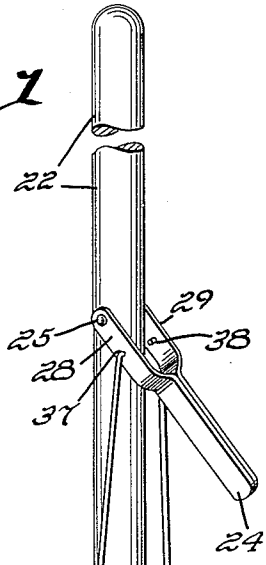


Fig. 2

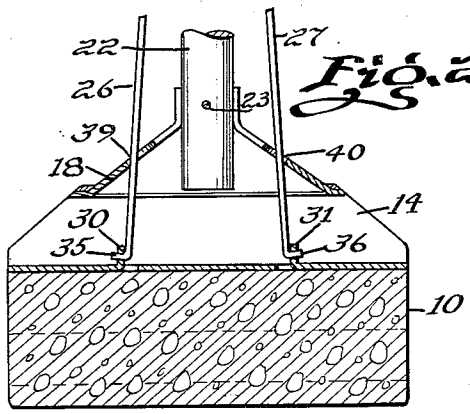


Fig. 3

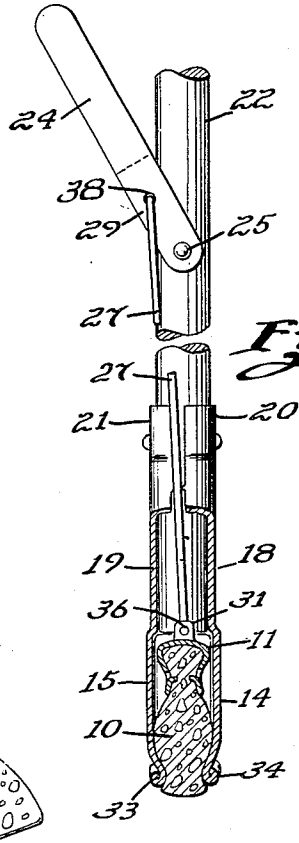
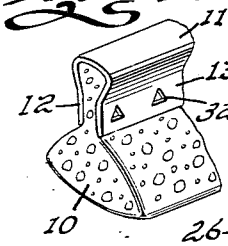


Fig. 4



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WRINGER MOP

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1 Claim. (Cl. 15—119)

This invention relates to the general class of mops of the self-wringing type, and in particular an applicator including an elongated web of fibrous absorbent material crimped in a U-shaped backing with the backing and body positioned between elongated friction jaws carried by a handle and having a hand lever pivotally mounted on the handle connected to the backing with rods whereby upward movement of the hand lever draws the applicator upwardly between the jaws wherein products in suspension in the web of the applicator are squeezed from the web by the jaws and wherein with upward and downward movement of the hand lever the web is drawn upwardly and forced downwardly between the jaws with a massaging action whereby molecules of detergents and other substances suspended in the web are expanded and contracted or worked back and forth in the web.

The purpose of this invention is to provide a device that is particularly adapted for applying liquid substances such as varnish, waxes, oil, soap and detergent solutions, liquid sealers, sizes, polishes and other liquid substances or solutions whereby the products are adapted to be absorbed into the web of the applicator and gradually expunged therefrom by slowly drawing the web upwardly between two friction-gripping jaws.

Various types of devices have been provided for expelling liquids and other substances from mops, brushes, and the like, however, such devices operate to expel a liquid completely from a mop or the like and, consequently, are not adapted for applicators wherein it is desirable to gradually force the product from the applicator as the product is used. With this thought in mind, this invention contemplates an elongated relatively thick web of fibrous absorbent material mounted between a pair of gripping jaws with means for drawing the web through the jaws for expunging substances suspended in the web whereby such substances may readily be applied to floors, walls, ceilings, building framework, motor vehicles and other objects or devices.

The object of this invention is, therefore, to provide a handle having a mounting element for a web of fibrous absorbent material whereby the web may be gradually drawn between friction-gripping jaws for forcing products in the web from an extended edge thereof.

Another object of the invention is to provide an applicator wherein products to be applied are suspended in a web of fibrous absorbent material wherein the web is adapted to be reciprocated between friction-gripping jaws for working products into the web and also for cleaning the web.

A further object of the invention is to provide an applicator having an elongated web of fibrous absorbent material frictionally held between elongated gripping jaws with the jaws carried by the end of a handle and with the web actuated between the jaws with a hand lever on the handle in which the applicator is of a simple and economical construction.

With these and other objects and advantages in view,

the invention embodies a substantially U-shaped backing member having spaced ears extended upwardly therefrom, an elongated web of fibrous absorbent material, a mounting member substantially U-shaped in cross section and having inwardly extended ridges on the lower edges providing friction-gripping jaws adapted to be positioned on sides of the backing member and also adapted to be extended over the web, a handle extended from the mounting member and a hand lever pivotally mounted on the handle and connected by rods to the ears of the backing member whereby the backing member and web are adapted to be drawn inwardly between the friction-gripping jaws or forced outwardly through the jaws.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings, wherein:

Figure 1 is a perspective view illustrating the improved applicator showing the device with part of the handle broken away.

Figure 2 is a longitudinal section through the head of the applicator taken on line 2—2 of Figure 1.

Figure 3 is a cross section through one end of the applicator being taken on line 3—3 of Figure 1.

Figure 4 is a detail showing one end of the web of the applicator with the web secured in the backing member and with part of the web and backing member broken away.

Referring now to the drawings wherein like reference characters denote corresponding parts, the improved applicator of this invention includes a web 10, a backing member 11, substantially U-shaped in cross section and having inwardly extended friction-gripping edges 12 and 13 crimped over one edge of the web, a substantially triangular shaped mounting member having arms 14 and 15 forming a supporting member U-shaped in cross section and having inwardly extended ribs or ridges 16 and 17 on the lower edges of the arms, substantially triangular shaped sections 18 and 19 extended upwardly from the arms 14 and 15, respectively, and having semi-circular sections 20 and 21 providing a hub extended upwardly therefrom, a handle 22 secured in the hub with a pin 23, a Y-shaped hand lever 24 pivotally mounted on the handle 22 with a pin 25 and rods 26 and 27 connecting arms 28 and 29 of the hand lever to ears 30 and 31 extended upwardly from the backing member 11.

Although it is preferred to form the web 10 of cellulose sponge material, it will be understood that other suitable fibers or absorbent material may be used and it will be understood that the web may be of any suitable thickness.

In the design shown, the edges 12 and 13 of the backing member 11 are provided with openings 32 from which prongs are struck and the prongs are forced inwardly into the web to insure the web remaining in the backing member.

With the web extended, as shown in Figure 1, the backing member is frictionally held between the ridges 16 and 17 of the arms 14 and 15 and the lower edges of the arms are rolled providing beads 33 and 34 that are positioned to bear against side surfaces of the web 10 to urge substances, and particularly liquids, from the web as the web is drawn upwardly through the throat or between the ridges 16 and 17.

The ears 30 and 31 on the upper surface of the backing member 11 are provided with openings and extended ends 35 and 36 on the lower parts of the rods 26 and 27 are extended through the openings, as shown in Figure 2. The upper ends of the rods 26 and 27 are extended inwardly and pivotally mounted in openings 37 and 38, respectively, in the arms 28 and 29 of the hand lever 24 and with the arms extended through openings 39 and 40 formed by recesses in the edges of the sections 18 and 19

of the mounting element the rods are readily drawn upwardly with the hand lever **24**, whereby the web or cellulose sponge is drawn from the position shown in Figure 1 to that shown in Figure 3.

The applicator of this invention may be provided in different sizes and the device, in its entirely, may be used for different purposes.

The device is primarily designed to apply varnish, wax, oil, soap or other detergent solutions, liquid sealers, sizes, polishes and other liquid substances or solutions to floors, walls, ceilings, frames or other parts of buildings or to motor vehicles and with the lower part of the web **10** positioned in a solution the hand lever **24** may be reciprocated to work the solution into the web and to evenly distribute particles or molecules of the product throughout the fibers of the sponge of which the web is formed.

In using the applicator in the conventional manner, products may be drawn into the web by capillary attraction and as the products are used or, after use, the products may be expunged by drawing the hand lever **24** upwardly whereby the lower portion of the web is drawn between the gripping ridges **16** and **17** wherein the web is squeezed by the ridges. It will be understood that the tension of the arms **14** and **15** may be adjusted to compensate for the material of the web or to correspond with the amount of material to be squeezed from the web.

By this means, the complete web may be saturated and material suspended in the extended edge of the web may readily be applied to floors, walls, or other surfaces, and as this material is used the web is drawn inwardly squeezing additional material toward the outer or contacting edge thereof.

The rounded lower edegs of the arms of the mounting element prevent damage to the material of the web and, as shown at point **41**, the beads or rolls **33** and **34** are bent upwardly at the ends to prevent damage to the web by sharp corners of the friction-gripping arms. With the lower edges of the friction-gripping elements formed in this manner, the web may be drawn inwardly and forced outwardly without danger of damaging the texture thereof.

It will be understood that modifications, within the scope of the appended claim, may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

An applicator comprising an elongated web of fibrous, compressible, absorbent material, a backing member crimped over an upper edge of said web, said backing member having ears with openings therein extended upwardly therefrom, a mounting member substantially triangular in shape having elongated base portions and inwardly converging sides tapering toward the apex of the mounting member, said mounting member being U-shaped in cross section, having depending arms with inwardly and longitudinally extended ridges on the base portions, said web and said backing member being positioned between the arms of the mounting member, a handle connected to and extended from the apex of said mounting member, a Y-shaped hand lever pivotally mounted on the handle, rods having inturned ends pivotally connected to said hand lever, said rods being extended from the hand lever through the tapering sides of the mounting member and having outturned ends that are pivotally connected to the openings of the ears on the backing member of the web within the mounting member whereby the web is adapted to be drawn upwardly between the ridges on the base portions of the mounting member upon actuating the hand lever to squeeze material from said web.

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